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FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
LAND USE APPROVAL FOR
PROPOSED STATE ROUTE (SR) 16/U.S. HIGHWAY (US) 41A IMPROVEMENTS

Proposed Action and Need

The Tennessee Department of Transportation (TDOT) has submitted to the Tennessee Valley Authority (TVA) a land use application dated July 24, 2008, requesting that TVA provide a permanent easement for a right-of-way over approximately 3 acres of TVA-managed property (Tract XTNRMRD-5H). The property is located at the Mullins Mill Bridge crossing near Duck River Mile 235.6. The right-of-way would accommodate expansion of SR 16 (US 41A) to four or five lanes east of Shelbyville, in Bedford County, Tennessee. The permanent easement would enable a future highway improvement project (including bridge improvements) resulting in a five-span girder bridge over the Duck River at this location. The bridge improvements also require review and approval by TVA in accordance with Section 26a of the *TVA Act*. TDOT has not submitted a Section 26a application at this time.

The requested permanent easement over approximately 3 acres of TVA-retained property is part of a larger highway improvement plan for SR 16 (US 41A) between Shelbyville and Tullahoma, in Bedford and Moore counties. The project route begins at SR 64 (Rice-Coffee Highway) east of Shelbyville in Bedford County and extends to west of Magnolia Lane in Moore County. The project is approximately 10 miles in length and would require approximately 149.5 acres of new right-of-way. The proposed project includes five sections. Section 1 begins at SR 64 in Shelbyville and extends west of the Duck River for a length of 1.33 miles. Section 2 extends from west of the Duck River to SR 276 (Thompson Creek Road) for a length of 3.69 miles. Section 3 is 1.40 miles in length and begins at Thompson Creek Road and ends at Shipman Creek Road. Section 4 begins at Shipman Creek Road and ends at the Bedford/Moore County line for a length of 2.66 miles. Section 5 begins at the county line and ends just west of Magnolia Lane at the Moore/Coffee County line and is 0.92 mile in length. Applications for TVA Section 26a approvals for stream crossings associated with construction of these sections will be reviewed by TVA upon receipt of the permit applications.

The need for the highway improvements has been identified in the *Statewide Transportation Improvement Plan*. TDOT has determined this highway stretch to be deficient in geometric, operational, and structure characteristics. The upgrading of the existing two-lane roadway to a four-lane divided highway, including the bridge that is the subject of this easement request, will correct these deficiencies. The improved roadway would also provide better access to the area's social and institutional facilities, commercial businesses, and residential areas as well as provide increased opportunity for development and economic growth in the area. TDOT has determined that the project has logical termini, has independent utility, and is sufficient to address environmental matters on a broad scope.

The Federal Highway Administration (FHWA) and TDOT jointly prepared an environmental assessment (EA) dated April 14, 2003, for the entire 10-mile improvement project, and FHWA issued a finding of no significant impact (FONSI) for the entire length on February 1, 2006. TVA

requested cooperator status for the EA preparation in a letter dated July 21, 2000. TVA commented on the preliminary draft EA on December 16, 2002, stating that Section 26a approval would be required for the water body crossings and suggesting further discussions to floodplain impacts, caves and sinkholes, archaeological impacts, historical impacts, and cumulative impacts (see Appendix F of the attached FHWA/TDOT EA).

TVA has reviewed the FHWA/TDOT EA during its consideration of the current action involving the permanent land easement and bridge improvements. TVA anticipates receiving requests for Section 26a approvals for stream crossings and the bridge improvements in the future and will process them at that time by reviewing the findings of the EA and completing additional environmental reviews as appropriate.

Alternatives

Two alternatives were evaluated in the FHWA/TDOT EA, the “No Build” and the “Build Alternative.” Under the “No Build Alternative,” no improvements would be made to the corridor other than minor improvements such as safety improvements and routine maintenance activities. The proposed “Build Alternative” would involve widening the existing SR 16 (US 41A) from a two-lane to a four-lane or five-lane highway. The proposed alternative would begin at SR 64 (Rice-Coffee Highway) east of Shelbyville in Bedford County and extend to west of Magnolia Lane in Moore County. The overall right-of-way width required for the improvements would vary from approximately 104 feet to 300 feet. The proposed improvements for the “Build Alternative” are planned to be constructed along an existing alignment of the roadway in all five sections of the project.

Impacts Assessment

Based on the findings in the FHWA/TDOT EA, the primary beneficial effects of the proposed roadway improvements include (1) correction of route deficiencies; (2) improved operating conditions; (3) increased traffic capacity; and (4) improvement in route safety. The primary impacts of the highway improvements would include (1) 19 family relocations and three business relocations; (2) temporary construction-related impacts (fugitive dust, siltation, noise, traffic disruptions, etc.); (3) possible minor temporary impacts to aquatic, terrestrial, and wildlife habitat; and (4) the loss of approximately 10 acres of prime farmland.

The construction of the project would convert approximately 149.5 acres of land into highway right-of-way. Approximately 10 acres are considered prime farmland by the Natural Resource Conservation Service. The project was determined to not adversely impact prime farmland and to be in compliance with the *Farmland Protection Policy Act of 1981*.

A conceptual *Stage Relocation Plan* was prepared by TDOT to assess the effects of displacements and determine the probability of successful relocations. All residential and business displacements were deemed acceptable, and comparable housing and facilities are available in the project area. No displacements of minorities are evident. The proposed project was determined to not adversely impact any community or cut off any community from services. The project was also determined not to impact any special interest or minority or ethnic groups.

The 10-mile SR 16 highway improvement project would have no substantial impact on the air quality of the area. The increased noise levels due to the project were evaluated, and two location points would experience levels approaching noise abatement criteria. Noise abatement was considered but determined to be unreasonable or unfeasible.

The roadway improvement project would have an effect on the aesthetic quality of the area due to roadway construction and loss of trees and other greenery by upgrading from a two-lane to a four-lane facility. The majority of the project is along existing highway, and the majority of loss would occur in undeveloped/vacant/agricultural land. The resultant view would be comparable to the existing preconstruction view and scenery of Bedford and Moore counties.

A total of 14 blue-line streams and three ponds occur within the 10-mile SR 16 project corridor. Ten are perennial or intermittent streams, and four are wet-weather conveyances. The streams include the Duck River and its five unnamed tributaries, Thompson Creek, Shipman Creek and its two unnamed tributaries, Carr Creek and its two unnamed tributaries, and Norman Creek. The highway construction would have minor temporary negative effects on the water quality (primarily increases in turbidity and sedimentation) in all water bodies adjacent to the road during the construction phase. TDOT and TVA would require best management practices (BMPs) for protection and to reduce the potential for water quality related impacts, and BMPs would be utilized during highway construction.

The construction of SR 16 highway improvements could cumulatively affect aquatic and terrestrial habitats and the Duck River watershed in the Bedford County area when considered along with an additional highway improvement project in the county (the SR 437–Shelbyville Bypass). For the aquatic resources, the use of the appropriate BMPs would ensure that the cumulative impacts are not significant. For the terrestrial resources, with the two highway improvement projects being constructed at the same general time frame, the potential to cumulatively impact forestlands in the area exists. However, compared to the total forest resources in the area, the potential effects would be minor.

The project development would comply with Executive Order 11988, “Floodplain Management.” The stream crossings are not considered a substantial encroachment on the floodplains and floodways of the area, and because the highway improvements would be constructed along the existing roadway alignment, there is no practicable alternative to locating within the floodplain. The impact on the natural and beneficial floodplain values of the project area would be the loss of wildlife habitat and loss of vegetation. The impacts on wetlands were assessed in accordance with Executive Order 11990, “Protection of Wetlands,” and there were no wetlands identified within the project’s impact zone.

The proposed road improvements would result in the loss of wooded and meadow habitat, which is scattered and fragmented by development. All reasonable precautions would be taken to minimize any disturbance to wildlife during construction including performing streamside and instream construction during dry periods and avoiding unnecessary removal of existing vegetation. Noise impacts from construction activities could alter wildlife behavior and inhibit mating, breeding, nesting, and feeding activities. Any adverse impact as a result of construction is anticipated to be short term, and recovery is expected following the end of construction.

Although several federally listed endangered species including mussels, fish, plants, and bats have been historically recorded within a 1-mile radius of the project corridor, no listed species are presently known to occur in the project area. The following federally listed bat species have been identified within Bedford County: *Myotis grisescens* and *M. sodalis*. Although no listed as endangered bats were found in the project area, TDOT consulted with the U.S. Fish and Wildlife Service (USFWS) regarding potential impacts to these species. The USFWS concluded that endangered bats would not be affected provided TDOT adhered to seasonal tree cutting

restrictions in order to protect possible Indiana bat maternity habitat. The proposed action would not likely affect these species.

Three federally listed mussel species (*Epioblasma florentina walkeri*, *E. turgidula*, and *Lexingtonia dolabelloides*) have been reported from Bedford County although only *L. dolabelloides* and *E. turgidula* have been reported in the project vicinity. *E. turgidula* has been extirpated from the area and is not known to occur at the proposed site. *L. dolabelloides* is known to be located approximately 4 river miles upstream of the proposed location. Its presence at or near the proposed site is possible, though historical surveys at this location have produced no specimens. One federally listed plant species (*Dalea foliosa*) has been identified in the county but not in the project vicinity. The proposed action would have no effect on the known populations.

Numerous state-listed aquatic species are known to occur in the project vicinity. Helmet rock snail (*Lithasia duttoniana*) and ornate rock snail (*L. genticula*) are known to exist at the proposed site. The Duck River is diverse with many state-listed fish species including coppercheek darter and ashy darter that were found at the site of the existing Duck River bridge by the Tennessee Wildlife Resources Agency (TWRA) during a survey in 2000. Proper BMP use and maintenance would minimize effects to these species. Because of possible effects to the habitat of these species, additional coordination with TWRA would occur prior to bridge construction. Other aquatic species of concern in the vicinity include one salamander (*Cryptobranchus alleganiensis*), five fishes (*Notropis rupestris*, *Percina phoxocephala*, *Etheostoma luteovinctum*, *E. striatulum*, and *E. cinereum*), one snail (*L. jayana*) and one mussel (*Obovaria subrotunda*); however, these species are not known from the immediate vicinity, and the proposed actions would have no effect on known populations.

In accordance with Section 106 of the *National Historic Preservation Act*, TDOT and the Tennessee State Historic Preservation Officer (TN SHPO) examined the potential effects of the project on cultural resources. They determined that the project area contains no archaeological resources eligible for listing in the National Register of Historic Places and thus no effect to cultural resources from the proposed action. As originally designed, the highway improvement project would have adversely affected the National Register-listed Shofner Lutheran Church and Cemetery. TDOT shifted the roadway alignment away from the church and cemetery and would implement a landscaping plan to minimize visual effects on them. This mitigation is documented in a memorandum of agreement (MOA) between TDOT, FHWA, and the TN SHPO. Shofner Lutheran Church and Cemetery are located in the vicinity of Thompson Creek in Section 2 of the highway project. No cultural resources would be impacted from bridge improvements in the proposed easement area.

The SR 16 improvement project would result in the construction of a new two-lane bridge across the Duck River at Mile 235.6 adjacent to the existing SR 16 Mullins Mill Bridge. The proposed permanent easement on TVA property is necessary to accommodate the new bridge, as is Section 26a approval, which has not yet been requested. Use of appropriate BMPs for erosion and sedimentation during bridge construction would reduce short-term impacts to water and aquatic fauna. Temporary increases in turbidity and siltation are expected to be minor. Coordination and timing of the building of a new bridge would alleviate the degree of impact to the diverse fish population in the Duck River. Any impact to aquatic communities would be expected to recover within one year.

TVA originally acquired the property at Mullins Mill Bridge for the construction and operation of a public river access site with a canoe launch point and parking area. The river access site is downstream of the existing bridge crossing. Vehicular access from the north side of the existing bridge to the river access site has been previously blocked (by guardrail) due to past abuse, and the new bridge would span the river upstream in the area that has been previously excluded from vehicular access. The expansion of the highway and new construction could impact the existing river access site, and TVA would require that TDOT replace gravel to repair any damage to the river access site. The granting of the easement and associated bridge construction are not anticipated to result in any long-term impacts on recreational use of the access area and Duck River.

Mitigation

An MOA agreeing not to impact the National Register-listed Shofner Lutheran Church and Cemetery was submitted to TDOT program managers on February 3, 2004. TDOT shifted the roadway alignment away from the church and would implement a landscaping plan to minimize visual effects. The MOA was signed by FHWA (1/22/04), the TN SHPO (12/2/03) and TDOT (11/25/03).

TVA (Land & Water Stewardship) would require as a condition of granting the permanent easement that TDOT replace gravel in the parking area and repair any portions of the river access area damaged during construction of the new bridge within the easement area.

Public and Intergovernmental Review

Following the issuance of the EA for public review, TDOT held a combined corridor and design public hearing in 2003 in Shelbyville. Eighty-seven persons attended the meeting, and 53 comments were received. A second public meeting was held in 2005 in Shelbyville to provide updates on the project and discuss design changes proposed during the 2003 meeting. Seventy-nine people attended the meeting and provided a total of 26 comments. All relevant issues raised in these comments have been addressed, as appropriate, in the final EA. As previously noted, the project has been reviewed by the USFWS and the TN SHPO.

TVA issued a public notice of the proposed easement request on December 11, 2008. No comments were received in response to the public notice.

Conclusion and Findings

TVA has independently reviewed the FHWA/TDOT EA and determined it to be adequate. TVA is therefore adopting the FHWA/TDOT EA. Based on the FHWA/TDOT EA and TVA's review, we conclude that the issuance of a permanent easement for expansion of SR 16 right-of-way over approximately 3 acres of TVA-managed property would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed